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Tech for Arthritis

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Presenter Information

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TECH FOR ARTHRITIS

Franklin High School

Alex Gaiovych, Anna Velikoretskikh, Ephraim Lee, Karl Stephenson, Kevin Wu, Miguel Campos, Veyda Campos

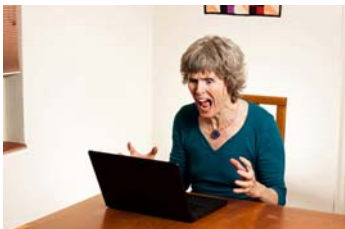
PROBLEM/OPPORTUNITY

In an era where technological advances are made on almost a daily basis, there are still many people who aren't able or are scared to use modern technology. While computers and phones get smarter and more powerful, they are also getting smaller and more precise. Trying to push a tiny button, either real or virtual, can be a real problem for those who suffer from arthritis.

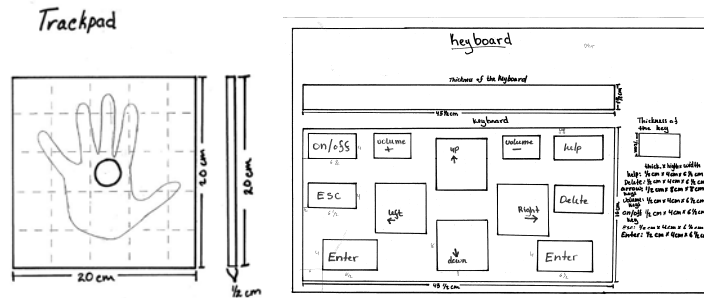
According to www.arthritis.org, over 50 million people are diagnosed with arthritis, most of which are senior citizens. Many of these seniors don't use technology to its full potential because they simply can't. For some, it's physically difficult with all the small keys and the pain in the wrist from using a mouse. For others, it's simply too frustrating, with too many buttons, too many programs, and constantly being scared that they'll do something wrong and break the computer. Many of us who grew up with technology may laugh at this, even though it is a real concern.

While many of these elderly people limit or even entirely refuse to use technology, they still want to stay in touch in loved ones, take care of their finances, shop, and do a number of other things that are all easily done on a computer.

Some seniors can become very frustrated when trying to use a computer



The new simplified keyboard and trackpad

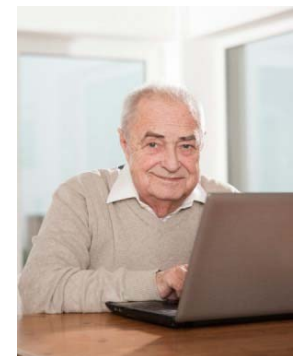


HUMAN IMPACT

Using our solution, the reported 50 million people who suffer from arthritis will finally be able to use a computer with ease. Using a voice activated system, seniors will no longer have to depend upon their ability to use a common keyboard. In addition to those who struggle with arthritis, our new computer system will make technology available to the majority of all seniors. There will no longer be reason to be scared to use technology, nor the frustration of not being able to do what you want to do. Everyone will now be able to keep in touch with their children and grandchildren via Skype or email.

The increased ease of using technology will likely encourage many to be more confident in taking care of their finances, shopping, keeping up with current events, and even finding entertainment, all online. Being able to once again feel connected to those they love, as well as make new connections, will greatly increase the enjoyment and quality of life for many seniors.

Helping seniors be able to use computers will improve their quality of life



To overcome these problems of frustration and pain that older generations frequently face, the computer as we now use it must change. To make technology more accessible to the older generations we have designed a new simplified keyboard to work alongside a computer that is controlled via voice commands. With this new interface, users will be able to simply sit in front of their computer and tell it what they would like to do, whether that be write an email, Skype with a friend, or even shop online.

Since the computer will be controlled by the voice of the user, all those with arthritis will no longer have to struggle with the mouse or keyboard, alleviating the pain that can currently be caused by such small, precise motions. In addition to aiding those with arthritis, this solution will also assist all elderly people, or anyone else who currently gets frustrated while using a computer.

There will still likely be times that voice commands won't suffice, so a new keyboard will also be supplied. This keyboard will have very few large keys, along with a large trackpad, making it easy to use for those with limited mobility in their arms and hands.